STATE OF VERMONT
AGENCY OF TRANSPORTATION

ITEM DETAIL AND DRAINAGE SHEET

STATION	STATION	POS.	ASKEW NO. DEG.	INLET/OUTLET TYPE INLET	INLET/OUTLET TYPE OUTLET	PIPE D IN	PIPE L FT	ALLOWABLE OPTIONS RCP CLASS	CAAP TH	CPEP SL	PIPE ELBOW NO. DEG.	ES EA	CB EA	MH EA	DEPTH DI FT	CONC CLASS B CY	REINF STEEL LBS	DI GRATE TYPE	MANHOLE COVER EA	CRM CY	TRENCH EXCAVATION EARTH CY	TRENCH EXCAVATION ROCK CY	GRAN BKFILL STRUCT CY	EROS MATT SY	STONE FILL CY	STONE FILL TYPE	MARKER POSTS LT EA	MARKER POSTS RT EA	REMARKS
EXISTING DRAINAGE																													* REFER TO DRAINAGE LAYOUT SHEETS FOR REMOVAL OR ABANDONMENT REQUIREMENT FOR EXISTING PIPES. QUANTITY OF PIPE REMOVAL IS INCLUDED IN TRENCH EXCAVATION OF ROCK WHERE APPLICABLE
US ROUTE 302																													
1 14+04.2	14+04.2	LT-RT		DI	OL	24	108											10.24 CY			7.4	6.0							REMOVE ENTIRE STRUCTURE AND REPLACE WITH NEW 5' DIA. CB (2 GRATES).
2 14+65.2	14+36.2	RT-RT		DI	OL	18	32	(10-14-08)													18.2	11.0							REMOVE ENTIRE STRUCTURE. BACKFILL WITH APPROVED MATERIAL (10-14-08)
3 15+00.0	14+04.2	LT-LT		DI	DI	15	~~100~~	(87 LF LEFT IN-PLACE)													P 5.1	~~12.3~~ 3.25 CY							REMOVE ENTIRE STRUCTURE. BACKFILL WITH APPROVED MATERIAL FLOWABLE FILL = 3.9 CY
4 15+87.0	15+00.0	LT-LT		DI	DI	15	~~64~~	(58 LF LEFT IN-PLACE)													~~35.5~~	~~14.2~~ 2.7 CY							REMOVE ENTIRE STRUCTURE. BACKFILL WITH APPROVED MATERIAL PIPE FILL = 3 CY
8 16+75.7	16+64.6	LT-RT		DI	OL	18	82															12.1							REMOVE ENTIRE STRUCTURE. BACKFILL WITH APPROVED MATERIAL
9 18+40.9	18+12.3	LT-RT		DI	OL	18	71																						RETAIN STRUCTURE, CHANGE DI ELEVATION
VT 110 & TH 30																													
5 53+35.0	53+35.4	LT-RT		DI	DI	12	43	(REMOVED ENTIRELY)													P 14.5	~~9.9~~ 7.6 CY + 2.15 = 9.75 CY							REMOVE ENTIRE STRUCTURE. BACKFILL WITH APPROVED MATERIAL 18" RCP REMOVED
6 53+35.4	53+35.1	RT-RT		DI	DI	12	25	(1.6 CY OF FLOWABLE FILL)														11.9						9-08-08	REMOVE ENTIRE STRUCTURE. BACKFILL WITH APPROVED MATERIAL PIPE = 1.6 CY F.F.
7 53+35.1	16+31.7	RT-RT		DI	OL	15	64															13.9							REMOVE DI, REMOVE PIPE TO NEW MH, RETAIN PIPE FROM NEW MH TO OUTFALL
10 55+31.5	54+89.4	RT-LT		DI	OL	18	59														9.7	0.8							REMOVE PIPE ONLY, RETAIN AND REHAB DI
11 56+47.1	55+31.5	RT-RT		DI	DI	18	114																						RETAIN STRUCTURE
12 56+45.3	54+98.9	LT-LT		DI	OL	24	146																						RETAIN STRUCTURE
PROPOSED DRAINAGE																													2' \ 4' / 2' = 1'x8'x15' PAD
US ROUTE 302																													
1 14+04.3	14+04.3	RT-RT		MH	OL	24	(40)	III		X		1		1					1		(45.8)		(23.7)		~~2.2~~ 4.4 CY	I		2	4' DIAMETER PRECAST REINFORCED CONCRETE MANHOLE (1 COVER) - OUTLET WITH ~~4'X15.1'~~ STONE FILL, TYPE I PAD @ OUTLET COMPLETE 10-23-08
2 14+04.2	14+04.3	LT-RT		CB	MH	24	56	III		X			1					B x2			82.4		49.8				1		REPLACE EXISTING 24" CMP WITH NEW 24" RCP/CPEP(SL) AND REPLACE DI WITH NEW 5' DIA. CB (2 GRATES) 48" O USED TYPE E GRATE USED (SINGLE)
3 14+30.0	14+04.3	RT-RT		CB	MH	18	(22)	III		X											(30.7)		(22.5)						18" WQv DIVERSION PIPE COMPLETE 10-23-08
4 14+30.0	14+28.0	RT-RT		CB	OL	18	22	COMPLETED 10-20-08		X		1	1					D			28.7		19.7		0.8	I		1	PIPE INSTALL 10-20-08 5' DIAMETER PRECAST REINFORCED CONCRETE CATCHBASIN WITH 18" WQv DIVERSION PIPE (1 GRATE) - OUTLET WITH 2'X5.8' STONE FILL, TYPE I PAD @ OUTLET 10-7-08 = 12 LF CB PARTIAL INSTALL = 10-20-08(50%)
5 14+30.0	14+30.0 10-20-08	LT-RT		CB	CB	18	(32)	III		X			1					D			(10.4)	PARTIAL PYMT	(7.2)						4' DIAMETER PRECAST REINFORCED CONCRETE CATCHBASIN (1 GRATE) 9-11-08 = 20 LF PARTIAL INSTALL
6 15+19.0	14+30.0	RT-RT	8-14-08	MH	CB	18	(84)	III		X				1					1		(61.0)		(49.8)						5' DIAMETER PRECAST REINFORCED CONCRETE MANHOLE (1 COVER) 8-18-08 = 60 LF PARTIAL INSTALL (COMPLETED 10-20-08)
7 16+25.7	15+19.0	RT-RT		CB	8-14-08 MH	18	106	III		X			1					D			(50.5)		(41.7)						4' DIAMETER PRECAST REINFORCED CONCRETE CATCHBASIN (1 GRATE) 8-20-08 = 70 LF PARTIAL INSTALL (FINISHED 9-26-08 36 LF)
8 16+25.7	16+25.7	LT-RT	9-22-08	CB	CB	18	(40)	III		X			1					D			(13.5)		(9.4)						4' DIAMETER PRECAST REINFORCED CONCRETE CATCHBASIN (1 GRATE) 9-22-08 = 20 LF PARTIAL INSTALL (FINISHED 9-26-08 20 LF)
VT 110 & TH 30																													
9 52+11.0	52+11.0	LT-RT		CB	CB	18	(34)	III		X			1					D			(7.9)		(4.6)						4' DIAMETER PRECAST REINFORCED CONCRETE CATCHBASIN (1 GRATE) PARTIAL 10-08-08 20 LF
10 52+11.0	52+62.0	RT-RT		CB	CB	18	48	III		X			1					D			15.3	PAID 10-8-08	10.7						4' DIAMETER PRECAST REINFORCED CONCRETE CATCHBASIN (1 GRATE) 10-07-08 FILL
11 52+62.0	52+62.0	LT-RT		CB	CB	18	(38)	III		X			1					D			(11.3)		(7.4)						4' DIAMETER PRECAST REINFORCED CONCRETE CATCHBASIN (1 GRATE) PARTIAL 10-08-08 20 LF
12 52+62.0	15+19.0	RT-RT		CB	8-14-08 MH	18	108	III		X			1					D	MINUS TRENCH		(66.3)	PARTIAL PYMT	(57.2)		TRENCH ROCK (COBBLES) 5.43 CY				4' DIAMETER PRECAST REINFORCED CONCRETE CATCHBASIN (1 GRATE) 8-21-08 60 LF PARTIAL INSTALL (COMPLETE 10-29-08)
13 53+34.1		RT		MH	OL									1					1 MINUS TRENCH 18.6 3 CY COBBLES		~~21.6~~		13.4					1	4' DIAMETER PRECAST REINFORCED CONCRETE MANHOLE CONSTRUCTED OVER EXISTING PIPE (1 COVER) 9-30-08 INSTALLED
14 ~~54+38.7~~ 54+44.7	15+19.0	LT-RT		CB	MH	18	(68)	III 8-14-08		X			1					D			P 30.0 8-14		P 23.8 8-14						4' DIAMETER PRECAST REINFORCED CONCRETE CATCHBASIN (1 GRATE) 8-14-08
15 ~~54+38.7~~ 48.7	~~54+38.7~~ 44.7	RT-LT		CB	CB	18	(30)	III 8-14-08		X			1					D			P 8.9 8-19		P 5.6 8-19						4' DIAMETER PRECAST REINFORCED CONCRETE CATCHBASIN (1 GRATE) 8-19-08
16 ~~54+97.6~~ 55+00.7	~~54+38.7~~ 44.7	LT-LT		MH	CB	18	(56)	III 8-14-08		X				1					1		P 45.3 8-15		P 28.8 8-15				1		4' DIAMETER PRECAST REINFORCED CONCRETE MANHOLE CONSTRUCTED OVER EXISTING PIPE (1 COVER) 8-15-08
17 55+31.5	54+97.6	RT-LT		CB	MH	18	(46)	III 8-14-08		X											P 33.5 8-27		P 30.5 8-27						REPLACE EXISTING 18" CMP WITH NEW 18" RCP/CPEP(SL) AND REHAB EXISTING DI 8-27-08
						18	688	CPEP(SL)																					
TOTALS						18 24 24	688 96 96	RCP CLASS III CPEP(SL) RCP CLASS III				2	4' D = 9 5' D = 2	4' D = 3 5' D = 1				D=10 B=2	4		633.9	92.1	405.8		3.0	TYPE I	2	4	

GUARDRAIL

BEGIN STATION	END STATION	POSITION LEFT FT	POSITION RIGHT FT	END TREATMENT LEFT FT	END TREATMENT RIGHT FT
REMOVE AND REST GUARDRAIL					
VT 110					
52+00	52+36	39			
US ROUTE 302					
16+69	17+94	128			
TOTALS		167			

UNDERDRAIN

BEGIN STATION	END STATION	POSITION	TYPE	DIA IN.	LENGTH FT	TRENCH EARTH CY.	TRENCH ROCK CY.	GRAN BKFILL CF	FB EA	MRK. POST EA
1 54+39	14+10	LT-LT	U	6	118	54.3			-	-
2 52+66	14+04	LT-RT	U	6	158	66.5	10-28-08		-	-
3 52+66	53+34	RT-RT	U	6	74	30.5		10-3-08	-	-
4 17+50 (PARTIAL INSTALL 10-2-08 → TO STA 16+28 RT COMPLETE 10-31-08)	53+34	RT-RT	U	6	(174)	(74.2)	( )		1	1
		TOTAL 6 INCH UNDERDRAIN PIPE			524	225.5			1	1
5 14+28	14+53	RT	U	6	28	16.2			1	1
6 14+60	14+53	RT	U	6	8	4.4			1	1
		DRY SWALE			36	20.6			2	2
7 14+10	14+04	LT-RT	C	6	44	27.2			1	1
8 52+62	52+66	LT	C	6	4	2.0	10-28-08	PVC CO USED	-	-
9 52+62	52+66	RT	C	6	4	2.0		NOT NEEDED	-	-
10 16+26	16+23	RT	C	6	4	2.0			-	-
11 54+39 (54+44.7 RT →)	54+39	RT	C	6	~~16~~ 22 LT	~~4.2~~ 3.8 CY			~~1~~ 0	1
12 54+39	54+36	LT	C	6	4	2.7	8-26-07		-	-
13 14+53	14+21	RT	C	6	36	19.0			1	1
		TOTAL 6 INCH UNDERDRAIN CARRIER PIPE			112	59.1			3	3
TOTALS						305.2			6	6

PROJECT NAME:	**BARRE TOWN**
PROJECT NUMBER:	**HES 026-I(38)**
FILE NAME:	**z04b198ITEM.XLS**
PROJECT LEADER:	**JOSHUA SCHULTZ**
DESIGNED BY:	**E. ATKINS**
PLOT DATE:	**1/3/2008**
DRAWN BY:	**W. WONG**
CHECKED BY:	**K. ISHIKURA**

ITEM DETAIL AND DRAINAGE SHEET SHEET 9 OF 64